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ABSTRACT

Five tables of data from the three surveys conducted during the 1970s by the National Assessment of Educational Progress are presented in this paper, with an interpretation of them regarding reading improvement. The paper provides comparative data from schools eligible and noneligible for Title I assistance across the following variables: age, mean reading performance, community size, race, school racial composition, geographic region, sex of student, and type of community. It then draws seven conclusions concerning reading gains during the 1970s, indicating a faster rate of reading improvement for students in Title I schools than for students in non-Title I schools. (RL) Results (Special Analyses) (Interpretation)

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HAS TITLE I IMPROVED EDUCATION FOR DISADVANTAGED STUDENTS?

EVIDENCE FROM THREE NATIONAL ASSESSMENTS OF READING

No. SY-DS-50

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April 23, 1981

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HAS TITLE I IMPROVED EDUCATION FOR DISADVANTAGED STUDENTS?

EVIDENCE FROM THREE NATIONAL ASSESSMENTS OF READING

National Assessment data gathered between 1970 and 1980 indicate that students attending Title I eligible schools* have improved their reading performance at a somewhat faster rate than students in schools not eligible for Title I assistance.

Table 1 presents mean reading achievement percentages for 9-year-olds, 13-year-olds and 17-year-olds enrolled in Title I and non-Title I eligible schools at three points in time -- the 1970-71 school year, the 1974-75 school year and the 1979-80 school year. The figures demonstrate that the reading performance of students in Title I eligible schools is lower than the performance of students in noneligible schools. That is to be expected. But the table also shows that the differences between eligible and noneligible schools shrank between 1970 and 1980.

Tables 3, 4 and 5 present a more comprehensive view of the situation. Here we see that the effects of Title I eligibility differ for different population groups.

- At age 9 (Table 3), the differences between black children in Title I eligible and noneligible schools shrank from 5.1 to 4.3 points over the decade, whereas the eligible/noneligible difference for Hispanic children grew from 6.1 points to 7.5 points between 1975 and 1980.

- Black 9-year-olds in predominantly white eligible schools gained ground on their peers in predominantly white noneligible schools, whereas the reverse appears to be true for blacks in predominantly black elementary schools: their eligible/noneligible difference might have increased slightly between 1975 and 1980.

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*See Table 2 for percent of eligible schools in each national assessment.

- The greatest closing of the gap at age 9 took place in the Southeast. At the beginning of the decade, Southeastern students in eligible schools were 11.5 points behind their fellow students in noneligible schools; at the close of the decade, the gap had narrowed to 6.3 points. Western students in eligible schools, on the other hand, fell farther behind their colleagues in noneligible schools.

- Thirteen-year-old students in eligible schools appear to have made their greatest gains between 1970 and 1974 and then lost a bit of the gain between 1974 and 1979 (Table 4). Again, the most dramatic change was for Southeastern students in eligible schools, who narrowed the gap from 8.7 points to 4.9 points over the decade.

- Seventeen-year-old students in eligible schools improved most between 1975 and 1980 (Table 5).

- Black 17-year-olds in eligible schools began the decade about five points behind blacks in noneligible schools. But by the end of the decade, there was no difference between the two groups.

- Southeastern 17-year-olds narrowed the gap between eligible/noneligible schools from 6.5 points to 1.9.

These significant changes and the overall pattern of a narrowing gap for most population groups at all ages strongly suggest that students in Title I schools are improving at a faster rate than students in non-Title I schools.

TABLE 1. Differences in Mean Reading Performance Between Students in Title I Eligible and Non-Title I Eligible Schools, Three Assessments*

	Reading Assessment Year								
	1970-71			1974-75			1979-80		
	Mean % Correct,** Students in Eligible Schools	Mean % Correct, Students in Noneligible Schools	Difference	Mean % Correct, Students in Eligible Schools	Mean % Correct, Students in Noneligible Schools	Difference	Mean % Correct, Students in Eligible Schools	Mean % Correct, Students in Noneligible Schools	Difference
Age 9	61.9	67.1	5.2	63.4	67.9	4.5	66.1	70.6	4.6
Age 13	58.2	62.6	4.4	58.7	61.3	2.6	59.2	62.3	3.1
Age 17	67.9	70.6	2.7	67.9	70.0	2.1	67.5	68.8	1.3

*See Tables 3, 4 and 5 for standard errors.
**Refers to the percentage of reading items correct. Reading items consisted of literal comprehension, inferential comprehension and reference skills items.

TABLE 2. Percent of Schools in NAEP Sample Eligible for Title I Assistance

Age	1970-71	1974-75	1979-80
9	59.0	59.1	59.6
13	58.3	52.5	48.4
17	62.6	47.3	40.1

TABLE 3. Differences in Mean Reading Performance Between Students in Title I Eligible Schools and Non-Title I Eligible Schools, Three National Assessments, Age 9

	1971						1975						1980					
	Eligible Schools	SE[1]	Non-Eligible Schools	SE	Diff	SE Diff[2]	Eligible Schools	SE	Non-Eligible Schools	SE	Diff	SE Diff	Eligible Schools	SE	Non-Eligible Schools	SE	Diff	SE Diff
Nation	61.9	0.4	67.1	0.5	5.2	0.7	63.4	0.5	67.9	0.5	4.5	0.7	66.1	0.6	70.6	0.8	4.6	1.0
Community Size[3]																		
Big cities	58.4	0.8	66.1	0.8	7.7	1.1	56.8	0.8	64.8	0.9	8.0	1.2	61.5	1.2	69.2	1.3	7.6	1.8
Fringes	66.3	0.9	68.5	0.9	2.3	1.2	67.4	0.9	69.3	0.8	1.9	1.2	65.7	1.5	72.0	1.2	6.3	1.9
Medium cities	59.8	0.9	67.8	1.0	8.0	1.3	62.9	1.0	67.7	0.9	4.8	1.4	67.0	1.7	71.4	1.6	4.5	2.3
Small places	62.1	0.5	65.6	0.8	3.6	1.0	64.0	0.6	69.0	0.8	4.9	1.0	67.2	0.8	69.5	1.3	2.3	1.5
Race																		
White	65.2	0.5	68.1	0.6	2.9	0.7	66.6	0.5	69.2	0.6	2.6	0.8	68.8	0.7	71.5	0.8	2.7	1.1
Black	48.7	0.7	53.8	1.4	5.1	1.6	53.4	0.8	57.9	1.3	4.5	1.5	58.8	1.2	63.0	2.3	4.3	2.5
Hispanic	*	*	*	*	*	*	53.1	1.4	59.3	2.3	6.1	2.7	57.6	1.8	65.1	2.3	7.5	2.9
Racial Composition[4]																		
White X 0-59	*	*	*	*	*	*	61.7	1.3	66.0	1.6	4.2	2.1	66.7	1.8	68.4	3.0	1.7	3.5
White X 60-100	66.2	0.5	68.2	0.6	2.1	0.8	66.9	0.5	69.5	0.6	2.6	0.8	69.0	0.7	71.7	0.8	2.7	1.1
Black X 0-59	*	*	*	*	*	*	52.2	0.8	55.8	1.7	3.6	1.9	57.9	1.3	64.0	3.4	6.0	3.7
Black X 60-100	55.3	2.3	59.8	2.9	4.5	3.7	56.5	1.4	60.6	1.9	4.0	2.4	60.6	2.2	62.4	2.8	1.8	3.6
Region																		
Northeast	65.2	0.7	66.7	0.9	1.5	1.1	65.4	0.7	70.1	0.9	4.7	1.2	68.2	1.1	71.5	1.3	3.3	1.7
Southeast	55.9	0.6	67.8	1.0	11.9	1.2	59.8	0.7	66.6	1.0	6.9	1.2	65.1	1.0	71.4	1.6	6.3	1.9
Central	64.6	0.7	69.1	0.8	4.5	1.1	66.4	0.7	69.1	0.8	2.7	1.1	68.0	1.0	70.9	1.4	2.9	1.7
West	61.5	0.8	64.8	0.8	3.3	1.1	61.0	0.8	66.3	0.8	5.2	1.2	62.3	1.2	69.6	1.1	7.3	1.7
Sex																		
Male	59.6	0.6	64.7	0.7	5.2	0.9	61.0	0.6	66.2	0.7	5.2	0.9	63.8	0.8	69.4	1.0	5.6	1.3
Female	64.1	0.6	69.5	0.7	5.4	0.9	65.9	0.6	69.7	0.7	3.8	0.9	68.4	0.8	71.9	1.0	3.6	1.3
Type of Community[5]																		
Rural	60.6	0.8	72.1	3.6	11.5	3.7	62.3	0.9	68.2	2.4	6.0	2.6	67.0	1.3	*	*	*	*
Disadvantaged-urban	52.1	0.9	55.3	1.7	3.2	1.9	54.4	0.9	59.0	2.2	4.5	2.4	57.5	1.4	59.5	2.6	2.0	3.0
Advantaged-urban	71.4	1.4	71.4	1.0	0.1	1.7	71.2	1.5	71.4	1.0	0.2	1.8	*	*	73.1	1.3	*	*

** Sample sizes are too small to permit reliable estimates.*

[1] The standard error (SE) is an estimate of potential sampling variability. Generally, we are confident that the "real" percentage will fall within two standard errors of the given percentage in at least 95 out of 100 samples.

[2] If the difference is at least twice its standard error, we are very confident that it is a real difference and not an artifact of sampling variation.

[3] Big cities = population 200,000+. Fringes = metropolitan areas on fringes of big cities. Medium cities = population 25,000-200,000, not in fringes. Small places = population under 25,000, not in fringes.

[4] Racial composition refers to the percentage of white students in a school. White X 0-59 means white students in schools with 0-59% white students; black X 0-59 means black students in schools with 0-59% white students.

[5] Type of community is based on characteristics of the community the school serves. Rural students attend schools in areas with a population under 10,000 where many of the residents are farmers or farm workers. Disadvantaged-urban students attend schools in or around cities having a population greater than 200,000 where a relatively high proportion of residents are on welfare or are not regularly employed. Advantaged-urban students attend schools in or around cities having a population greater than 300,000 where a high proportion of the residents are in professional or managerial positions.

TABLE 4. Differences in Mean Reading Performance Between Students in Title I Eligible Schools and Non-Title I Eligible Schools, Three National Assessments, Age 13

	1970						1974						1979					
	Eligible Schools	SE[1]	Non-Eligible Schools	SE	Diff	SE Diff[2]	Eligible Schools	SE	Non-Eligible Schools	SE	Diff	SE Diff	Eligible Schools	SE	Non-Eligible Schools	SE	Diff	SE Diff
Nation	58.2	0.4	62.6	0.5	4.4	0.6	58.7	0.5	61.3	0.5	2.6	0.7	59.2	0.7	62.3	0.7	3.1	1.0
Community Size[3]																		
Big cities	52.3	0.8	61.4	0.7	9.2	1.0	51.4	0.9	57.4	0.8	6.0	1.2	53.8	1.2	60.9	1.3	7.1	1.8
Fringes	62.0	0.7	64.2	0.8	2.2	1.1	62.4	1.0	64.2	0.8	1.8	1.3	62.8	1.7	62.9	1.1	0.1	2.0
Medium cities	56.8	0.8	63.0	1.0	6.2	1.2	57.4	1.0	59.9	1.0	2.5	1.4	59.0	1.3	62.3	1.4	3.3	1.9
Small places	57.9	0.5	62.8	0.7	4.8	0.9	59.6	0.6	61.2	0.8	1.6	0.9	60.3	0.8	62.3	1.0	2.0	1.3
Race																		
White	61.2	0.4	64.4	0.5	3.2	0.7	61.9	0.5	63.5	0.5	1.6	0.8	62.8	0.7	64.0	0.7	1.2	1.0
Black	44.3	0.7	47.9	1.0	3.6	1.2	45.5	0.9	48.1	1.1	2.6	1.4	48.4	1.3	51.6	1.7	3.2	2.2
Hispanic	*	*	*	*	*	*	48.3	1.5	49.8	1.8	1.5	2.3	49.7	1.8	55.5	2.4	5.8	3.1
Racial Composition[4]																		
White X 0-59	*	*	*	*	*	*	55.6	1.5	59.1	1.5	3.5	2.1	58.2	2.0	62.4	2.1	4.2	2.9
White X 60-100	61.8	0.5	65.2	0.5	3.4	0.7	62.3	0.5	63.0	0.6	1.6	0.8	63.2	0.8	64.2	0.8	0.9	1.1
Black X 0-59	*	*	*	*	*	*	43.6	1.0	46.0	1.5	2.4	1.8	48.6	1.4	50.9	2.2	2.2	2.6
Black X 60-100	47.5	1.6	52.5	2.1	5.0	2.7	49.5	1.5	49.9	1.7	0.4	2.2	48.0	2.6	52.7	2.6	4.7	3.7
Region																		
Northeast	61.0	0.6	64.3	0.8	3.3	1.0	60.1	0.7	62.2	0.9	2.1	1.1	61.2	1.1	62.2	1.2	1.0	1.6
Southeast	52.6	0.6	61.3	0.9	8.7	1.0	54.6	0.8	59.3	0.9	4.6	1.2	55.4	1.2	60.3	1.2	4.9	1.7
Central	61.4	0.6	64.0	0.7	2.6	1.0	61.7	0.7	63.5	0.8	1.9	1.1	63.7	1.1	63.2	1.1	-0.4	1.5
West	57.4	0.7	60.8	0.7	3.4	1.0	57.3	0.8	60.1	0.8	2.8	1.2	56.2	1.2	63.0	1.1	6.8	1.6
Sex																		
Male	55.7	0.5	60.6	0.6	4.9	0.8	56.5	0.6	58.9	0.6	2.4	0.9	57.1	0.9	60.5	0.9	3.4	1.2
Female	60.6	0.5	64.5	0.6	3.9	0.8	60.9	0.6	63.7	0.6	2.8	0.9	61.1	0.8	64.1	0.9	3.0	1.2
Type of Community[5]																		
Rural	56.7	0.8	57.0	1.5	0.3	2.0	57.2	1.0	57.7	1.6	0.5	1.9	58.3	1.4	61.0	2.7	2.7	3.1
Disadvantaged-urban	48.4	0.8	51.8	1.2	3.3	1.4	48.7	1.0	48.8	1.5	0.1	1.8	52.1	1.4	55.4	1.9	3.4	2.4
Advantaged-urban	66.5	1.2	67.7	0.8	1.2	1.4	66.1	1.7	66.8	0.9	0.7	2.0	64.7	2.2	69.5	1.4	4.8	2.7

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[5]Type of community is based on characteristics of the community the school serves. Rural students attend schools in areas with a population under 10,000 where many of the residents are farmers or farm workers. Disadvantaged-urban students attend schools in or around cities having a population greater than 200,000 where a relatively high proportion of residents are on welfare or are not regularly employed. Advantaged-urban students attend schools in or around cities having a population greater than 200,000 where a high proportion of the residents are in professional or managerial positions.

TABLE 5. Differences in Mean Reading Performance Between Students in Title I Eligible Schools and Non-Title I Eligible Schools, Three National Assessments, Age 17

	1971						1975						1980					
	Eligible Schools	SE[1]	Non-Eligible Schools	SE	Diff	SE Diff[2]	Eligible Schools	SE	Non-Eligible Schools	SE	Diff	SE Diff	Eligible Schools	SE	Non-Eligible Schools	SE	Diff	SE Diff
Nation	67.9	0.4	70.6	0.5	2.7	0.7	67.9	0.5	70.0	0.5	2.1	0.7	67.5	0.8	68.8	0.6	1.3	1.0
Community Size[3]																		
Big cities	64.8	0.8	69.5	0.8	4.6	1.2	58.3	1.2	66.6	0.8	8.3	1.4	62.6	1.6	65.3	1.1	2.7	1.9
Fringes	71.2	0.8	72.7	0.9	1.5	1.2	70.8	1.1	71.8	0.8	1.0	1.3	69.4	1.8	71.7	1.2	2.3	2.2
Medium cities	68.5	0.8	71.9	1.0	3.4	1.3	68.6	1.1	69.7	0.9	1.0	1.4	66.8	1.5	69.6	1.3	2.8	2.0
Small places	67.4	0.5	69.0	0.9	1.6	1.0	68.7	0.6	70.5	0.8	1.8	1.0	68.0	1.0	68.7	0.9	0.7	1.4
Race																		
White	70.5	0.5	72.4	0.6	1.8	0.7	71.2	0.6	72.4	0.5	1.2	0.8	70.4	0.8	71.7	0.7	1.3	1.1
Black	50.2	0.8	55.0	1.2	4.8	1.5	50.3	1.0	54.4	1.1	4.1	1.5	52.9	1.8	51.9	1.5	-1.0	2.3
Racial Composition[4]																		
White X 0-59	63.8	1.1	66.6	1.4	2.8	1.8	68.2	1.6	69.4	1.5	1.3	2.2	73.4	2.1	69.1	2.5	-4.3	3.3
White X 60-100	71.0	0.5	72.7	0.6	1.7	0.8	71.4	0.6	72.5	0.5	1.1	0.8	69.8	0.9	71.8	0.7	2.0	1.1
Black X 0-59	49.3	1.0	53.0	1.6	3.8	1.9	49.4	1.1	54.1	1.5	4.6	1.9	53.0	2.1	51.6	2.0	-1.4	2.9
Black X 60-100	51.7	1.3	56.1	1.6	4.4	2.1	52.9	1.8	55.0	1.5	2.1	2.4	52.7	2.9	52.2	2.0	-0.5	3.5
Region																		
Northeast	70.3	0.7	71.3	0.8	0.9	1.1	67.6	0.8	72.6	0.8	5.0	1.2	67.1	1.3	69.7	1.2	2.6	1.8
Southeast	61.8	0.7	68.3	1.0	6.5	1.2	62.2	0.9	67.8	0.8	5.6	1.2	64.1	1.5	66.0	1.1	1.9	1.9
Central	71.9	0.6	70.0	1.0	-1.8	1.2	70.4	0.8	72.6	0.8	2.1	1.1	69.9	1.2	71.0	1.0	1.1	1.6
West	65.3	0.7	71.4	0.8	6.0	1.1	68.6	0.9	66.6	0.8	-1.9	1.2	67.4	1.4	68.6	1.0	1.2	1.7
Sex																		
Male	65.9	0.6	69.3	0.7	3.4	0.9	66.2	0.6	68.2	0.6	2.0	0.9	66.0	1.0	67.5	0.8	1.5	1.3
Female	69.9	0.5	71.9	0.7	2.0	0.9	69.5	0.6	71.7	0.6	2.2	0.9	69.0	1.0	70.1	0.8	1.1	1.3
Type of Community[5]																		
Rural	66.4	0.9	63.4	2.1	-3.0	2.3	67.4	1.0	69.4	1.8	2.0	2.0	65.6	1.4	62.5	2.4	-3.1	2.8
Disadvantaged-urban	61.4	1.0	60.2	1.3	-1.3	1.6	57.4	1.2	61.0	1.1	3.6	1.7	58.0	1.7	60.2	1.8	2.2	2.5
Advantaged-urban	76.1	1.4	75.5	0.9	-0.6	1.7	74.2	1.7	76.5	1.0	2.3	1.9	73.1	2.9	73.7	1.4	0.6	3.2

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[3]*Big cities = population 200,000+. Fringes = metropolitan areas on fringes of big cities. Medium cities = population 25,000-200,000, not in fringes. Small places = population under 25,000, not in fringes.*

[4]*Racial composition refers to the percentage of white students in a school. White X 0-59 means white students in schools with 0-59% white students; black X 0-59 means black students in schools with 0-59% white students.*

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